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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,930	10/20/2003	Kenjiro Yoshioka	Q78047	8324

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EXAMINER

CHEN, SOPHIA S

ART UNIT PAPER NUMBER

2852

DATE MAILED: 04/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/687,930

Applicant(s)

YOSHIOKA ET AL.

Examiner

Sophia S. Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-18 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/20/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Ex parte Quayle***

1. This application is in condition for allowance except for the following formal matters:

#### ***Drawings***

2. Figures 31 and 32 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: L1 (page 15, line 4), Fa (page 40, line 13, etc.), Fb (page 40, line 16, etc.), Fc (page 40, line 18, etc.), 2a (page 45, line 6), and 4b (page 45, line 7). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the

filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: F21, F22, F24 (Figure 11), 45, K (Figure 13), F29 (Figure 14), 54b (Figures 14 and 15), 8a, 8b (Figure 19), 6s, and 6r (Figure 26). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because of the following informalities:

a. Reference character "A" has been used to designate both "a portion of the seam portion" (page 14, line 11, etc. and Figures 5 and 17) and "a moving direction" (page 26, lines 20-21 and Figures 12 and 18).

b. Reference character "B" has been used to designate both "a portion of the seam portion" (page 14, line 12, etc. and Figures 5 and 17) and "a moving direction" (page 26, line 23 and Figures 12 and 18).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

6. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "third stretching member and fourth stretching member which are arranged such that a circulating path of the belt member is made trapezoidal" (for fixing the recording medium; claim 6) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

7. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

8. The disclosure is objected to because of the following informalities:

- a. Page 12, line 2, "mov" should be "move".
- b. Page 16, line 1, "can b" should be "can be".

- c. Page 19, line 13, "28a" should be "18a".
- d. Page 21, line 2, "th" should be "the".
- e. Page 30, line 4, "30" should be "39".
- f. Page 36, line 15, "Fig. 19" should be "Fig. 9".
- g. Page 39, line 8, "19" should be "P19".
- h. Page 39, line 9, "20" should be "P20".
- i. Page 45, line 2, "xample" should be "example".
- j. Page 45, line 9, "3" should be "5".
- k. Page 45, line 10, "3" should be "5".
- l. Page 45, line 11, "3" should be "5".
- m. Page 46, line 2, "th" should be "the".
- n. Page 51, line 1, "ev n" should be "even".
- o. Page 51, line 2, "d vice" should be "device".
- p. Page 52, line 1, "Is" should be "1s".
- q. Page 52, line 4, "Is" should be "1s".
- r. Page 53, line 1, "m mbers" should be "members".
- s. Page 55, line 2, "becom s" should be "becomes".
- t. Page 63, line 2, "th" should be "the".
- u. Page 65, line 2, "oth r" should be "other".
- v. Page 68, line 1, "t mperature" should be "temperature".
- w. Page 68, line 1, "r gard" should be "regard".
- x. Page 70, line 1, "th" should be "the".

y. Page 70, line 1, "Th refore" should be "Therefore".

Appropriate correction is required.

### ***Claims***

9. Claim 15 contains the following informality: line 2, "str tching" should be "stretching". Appropriate correction is required.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

### ***Allowable Subject Matter***

10. Claims 1-18 are allowable over the prior art of record.

11. The following is a statement of reasons for the indication of allowable subject matter: Independent claim 1 is allowable over the prior art of record because the prior art of record does not teach or suggest a length of the seam portion is no less than a length between a first point at which the endless belt is separated from one of the first stretching member and the second stretching member and a second point at which the endless belt is brought into contact with the other one of the first stretching member and the second stretching member, in combination with the remaining claimed limitations.

Independent claim 15 is allowable over the prior art of record because the prior art of record does not teach or suggest a length of the seam portion is no less than a



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length between a first point at which the fixing member is abutted against the first stretching member through the belt member and a second point at which the fixing member is abutted against the second stretching member through the belt member, in combination with the remaining claimed limitations.

***Citation of Pertinent Prior Art***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Brooksbank (US Pat. No. 4,311,756) discloses an endless belt member having a seam portion and being rotated by two rollers.

Merle et al. (US Pat. No. 5,321,480) discloses a fixing belt having a seam portion and being rotated by two rollers.

Shuster et al. (US Pat. No. 5,489,972) discloses a photosensitive belt having a seam portion.

Hayashi et al. (US Pat. No. 5,697,030) discloses a transfer belt having a seam portion and being rotated by four rollers.

Dalebout et al. (US. Pat. No. 5,951,441) discloses a belt member having a seam portion and being driven by two rollers.

Mochida (US Pat. No. 6,009,290) discloses an image forming apparatus comprising a transfer belt having a seam portion.

Hayano et al. (US Pat. No. 6,181,889 B) discloses an image forming apparatus comprising a photosensitive belt having a seam portion.

Sandell (US Pat. No. 6,312,778 B1) discloses a belt member having a seam portion.

Engle et al. (US Pat. Pub. No. US 2002/0170806 A1) discloses an endless belt member having a seam portion and being rotated by two rollers.

Yuan et al. (US Pat. No. 6,618,570 B2) discloses an endless belt member having a seam portion and being rotated by two rollers.

Honobe (JP 06-043768 A) discloses an image forming apparatus comprising a transfer belt having a seam portion.

Uda et al. (JP 11-212422 A) discloses an image forming apparatus comprising a photosensitive belt having a seam portion.

Torio (JP 2000-330422 A) discloses an image forming apparatus comprising a photosensitive belt having a seam portion.

Kato et al. (JP 2001-066907 A) discloses an image forming apparatus comprising an intermediate transfer belt having a seam portion.

Hayashi (JP 2001-215845 A) discloses an image forming apparatus comprising a photosensitive belt having a seam portion.

Fujita (JP 2002-082540 A) discloses an image forming apparatus comprising an intermediate transfer belt having a seam portion.

Fujita (JP 2002-091194 A) discloses an image forming apparatus comprising an intermediate transfer belt having a seam portion.


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**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sophia S. Chen whose telephone number is (571) 272-2133. The examiner can normally be reached on M-F (7:00-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Sophia S. Chen  
Primary Examiner  
Art Unit 2852

Ssc  
March 29, 2005